SECTION 07911

COMPRESSION SEALS

PART 1 - GENERAL

1.1 DESCRIPTION

A. This Section specifies furnishings and installing preformed compression seals for concrete placements.

1.2 QUALITY ASSURANCE

A. Certificates. Provide certificate listing materials used in accepted manufacturer's systems and certifying compliance with standards designated and design criteria indicated.

1.3 DESIGN CRITERIA

A. The Contract Drawings indicate joint dimensions, anticipated amount of movement, location, traffic conditions, and other factors affecting choice of compression seal type and configuration.

1.4 SUBMITTALS

A. Manufacturer's Literature. Submit literature describing products, including the following:

1. Requirements for joint and surface preparation, temperature and humidity, and other items required for successful completion of the work.

2. Details and methods of splicing, bending and welding.

3. Installation instructions including allowable temperature ranges at time of joint construction.

B. Shop Drawings. Submit shop drawings showing types and configurations of compression seals selected, with supporting calculations demonstrating conformance with indicated design criteria.

C. Certificates. Provide manufacturer's certificate complying with requirements of Article 1.2.A.

1.5 PROJECT CONDITIONS

A. Environmental Requirements. Do not install compression sealing systems when temperature is above 85 degrees F or below 40 degrees F. or when there is ice, frost, or dampness on the surfaces to be sealed.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Preformed Compression Seal Material: Polychloroprene, conforming to ASTM D 2628, dimensions and configuration selected by manufacturer to meet the indicated design criteria, continuous one-piece construction except at following locations:

1. At 90 degrees corners.

2. At intersections of compression seals.

3. At other locations accepted by the Engineer.

B. Lubricant-Adhesive: Compound consisting of same base polymer as seals, blended with suitable volatile solvents, having suitable consistency at temperatures at which seals are to be installed and compatible with materials abutting seals.

C. Compression Seal Joint Material: Closed cell neoprene, conforming to ASTM C 509, with adhesive as recommended by manufacturer.

D. Bonding Adhesive for Compression Seal Intersections: As recommended by manufacturer.

E. Ferrous Metal: Section 05500

F. Aluminum Extrusions: ASTM B 221, clear anodized.

G. Fastenings For Mechanical Lock Type Seals: Types as indicated, conforming to Section 05500.

2.2 FINISHES

A. Ferrous Metal

1. Mild Steel: Clean, and zinc coat in accordance with applicable requirements of Section 05500.

2. Corrosion Resisting: Manufacturer's standard.

B. Aluminum: Aluminum Association designated finish as specified in the Construction Specifications.

PART 3 - EXECUTION

3.1 PREPARATION

A. Clean out joints to receive compression seals in a manner that leaves joint walls clean and joints free of debris and moisture.

B. Patch interfaces, edges, and corners of joints as required to provide smooth, straight, and parallel sides to proper width and depth as required for proper installation of compression seals.

3.2 INSTALLATION

A. Compression Seal Joints

1. General. Install seal joints in accordance with following requirements:

a. At 90 Degree Corners: At end of each compression seal.

b. At Compression Seal Intersections: At end of shorter compression seal or seals.

c. At Locations Accepted by the Engineer: As required to close ends of compression seals, unless otherwise directed.

2. Installation of Seal Joints

a. Cut joint seals to thickness as recommended by manufacturer and equal to size and shape of uncompressed seal.

b. Install joint seals on open end of compression seal with joint seal adhesive applied in accordance with manufacturer's instructions.

3. Dimensional Requirements. Provide compression seals having joint seals such that length of compression seal plus joint seal(s) is as required to provide, upon installation, joint seals in compression in accordance with manufacturer's recommendations.

B. Installation of Non-Mechanical Type Seals

1. Apply continuous coat of lubricant-adhesive to both sides of joints to entire depth of compression seals, and to edges of compression seals designed to be in contact with sides of joints.

2. While lubricant-adhesive is still wet, install compression seals to

required depth.

C. Installation of Mechanical Lock Type Systems

1. Install seal and assemblies as indicated.

2. Install aluminum or steel facings or claws continuous for the full length of joints where indicated. Where splicing is required, provide continuous welded joint, ground smooth.

D. Splicing. If permitted by the Engineer, perform splicing in accordance with manufacturer's instructions.

PART 4 - MEASUREMENT AND PAYMENT

4.1 GENERAL. No separate measurement or payment will be made for work under this section, but all costs therefore shall be included in the Contract lump sum price for the item to which the work pertains.

END OF SECTION